WIRELESS CONSUMERS ALLIANCE INC.

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September 1, 1999

Ms. Magalie Roman Salas
Office of the Secretary
Federal Communications Commission
The Portals
445 Twelfth Street, S.W.
12th Street Lobby, TW-A325
Washington, DC 20554

Re: Comments
CC Docket No. 94-102

Dear Ms. Salas:

Enclosed is an original and twelve copies of Opposition of Wireless Consumers Alliance, Inc. to the Petition for Reconsideration of Ericson, Inc. Please return one filed stamped copy to us in the enclosed self-addressed, stamped envelope. Thank you.

Sincerely,

Carl Hilliard

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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Revision of the Commission's Rules	)	**CC Docket No. 94-102**
To Ensure Compatibility With	)	
Enhanced 911 Emergency Calling	)	
Systems	)	

OPPOSITION OF THE WIRELESS CONSUMERS ALLIANCE TO THE PETITION FOR RECONSIDERATION OF ERICSSON INC.

The Wireless Consumers Alliance ("Alliance") hereby submits its opposition to the petition for reconsideration of the *Second Report and Order* filed by Ericsson in the above captioned proceeding.[1]

Ericsson complains that the 9 month timeframe established by Section 22.921 to add 911 call selection processes approved by the Commission to its handsets is insufficient. According to Ericsson, this decision is not "supported by credible facts regarding the manufacturing process."[2] However, the Alliance commissioned a study by Giordano Automation Corp. to provide an independent expert opinion on this subject. The Giordano report contains an in depth analysis of the steps necessary to insert

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[1] *In the Matter of Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, CC Docket No. 94-102, FCC 99-96 (rel. June 9, 199), 64 Fed. Reg. 34564 (June 28, 1999) ("*Second Report and Order*"). The petition for reconsideration ("Petition") was filed on July 28, 1999, on notice was published in 64 Fed. Reg. 46200 (August 24, 1999).

[2] Petition, p. 2.

Strongest/Adequate Signal in handset software, including the testing. This report was filed with the Commission on May 7, 1999 and concludes that the handset software changes and testing can be accomplished in well under six months. No one has questioned or challenged the detailed analysis set forth in this comprehensive report. Indeed, the only "facts" submitted by the carriers and the manufacturers are unsupported time estimates. These estimates have since been contradicted by public statements from manufacturers which indicate that they will have no difficulty in meeting the deadline established by the Commission.[3]

The estimate submitted by Ericsson to Dan Grosh of the Commission's staff is that "12 months or less" will be required to develop and implement its own 911 call completion method.[4] Ericsson has already inserted almost all of the elements of Strongest/Adequate Signal in its handsets and a *very minor* change will be required to bring this equipment into compliance with Section 22.921.[5]

We asked Instrument Engineering Inc., who has now acquired the engineering division from Giordano, to review the above mentioned documents and give us an opinion concerning the contentions in the Petition. Instrument Engineering responded by letter dated August 13, 1999. A copy of that letter is attached as Appendix "B" and incorporated herein by reference. Instrument Engineering concludes "[w]e see no reason to change our earlier opinion, which detailed the type of modifications required, and believe that Ericsson can, in fact, make the changes required by the Commission in six

[3] See August 1, 1999 issue of Wireless Review article attached as "Appendix 'A'".
[4] Conversations on 911 Call Completion Factual Issues, Dan Grosh, WTB Policy Division, filed 7/22/99.
[5] See Appendix "B" and the November 2, 1998 letter from David C. Jatlow, Counsel for Ericsson, Inc., to the Commission.

months or less. Our opinion is consistent with the prior statements made by Ericsson and with similar statements by other equipment manufacturers."

Ericsson also proposes to limit the effect of Section 22.921 by excluding *all* handsets which have been *submitted* for type acceptance prior to February 13, 2000.[6] Thus, the enhanced access to 911, which the record shows, and the Commission has found, are required by the public interest, would be limited and even further deferred to a uncertain date in the future under Ericsson's proposal. This insensitivity to the massive record in this proceeding showing that life and property will be saved by the addition of a 911 selection process approved by the Commission is almost unbelievable. A minor inconvenience to Ericsson, who claims unidentified "disruptive changes," is not grounds for the delay of a public safety feature which is already long over due. No other manufacturer has complained or asked for reconsideration For shame Ericsson for filing such a specious and irresponsible petition. The Commission should reject this petition with dispatch.

Respectfully Submitted,
Wireless Consumers Alliance, Inc.

By: _____

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September 1, 1999

[6] Ericsson's analogy to the Commission's *Reforming* proceeding is inapposite. Narrow banding has an affect on emissions and type acceptance is thus required. The software changes to the handset required by Section 22.921 do not affect emissions and no type acceptance is needed.

Strength in Numbers

BY TIM KRIDEL, STAFF WRITER

The FCC gave carriers a choice of three solutions for completing 911 calls where their coverage is poor. But which ones will make it to market?

Despite the ads touting nationwide coverage, no wireless carrier has seamless coverage in every corner of the United States. The Wireless Consumers Alliance, which sparred with the industry over ways to improve 911 access, estimated that in urban areas, as much as 10% of any analog service area is uncovered. In suburban areas, that figure is 25%; for rural areas, it's 33%.

But combine both analog carriers' coverage areas in any market, and the holes diminish significantly. That was the logic driving the debate over how to improve the chances of completing 911 calls made from wireless phones. In May, the FCC required all analog handsets manufactured after February 2000 to be able to route a 911 call to the other carrier if it can't connect using the primary carrier. The goal is to ensure that callers will reach help even in areas where their carriers have poor or no coverage.

The FCC provided three solution options — automatic A/B roaming – intelligent retry (A/B-IR), strongest signal and selective retry — and left it up to each carrier and vendor to implement their choices. All three are primarily handset upgrades and transparent to the network because most, if not all, networks complete 911 calls without first checking roaming agreements, blacklists and authentication. So it's possible that in February, a carrier could have all three solutions operating in its markets simultaneously.

"I don't really care what method the handset vendors implement," said one carrier executive who had just begun discussions with his vendors. "What we have to ensure is that one of the three is in every handset that we buy."

Pros & Cons

That ambivalence toward solution choices is a far cry from the fractious debate just a few months earlier. The solution that drew the most criticism was strongest signal, where the handset would use the carrier with the strongest control-channel signal. Many in the industry denounced strongest signal for the potential cost of its intellectual-property rights. But perhaps the biggest gripe was technical: The solution chooses the strongest control channel,

Illustration by Gary Fasen

APPENDIX "A"

which doesn't necessarily mean that a voice channel robust enough to support a call also is available.

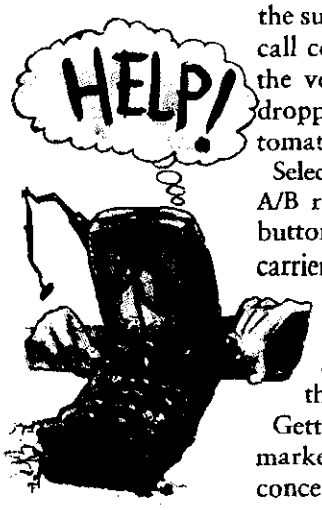
Standards also will determine which solutions are chosen.

"The adequate/strongest-signal solution is the most difficult to implement," said Phil Hester, Ericsson director of product marketing. That's because the other two solutions are better supported in the current standards.

"Adequate/strongest signal will require a little bit of standards work," said Jim McGarrah, BellSouth Cellular director of network services. "Because standards is a consensus process, typically that's not an overnight process. On the other hand, a lot of the people who have been involved in this discussion through the Wireless E-911 Implementation Ad-Hoc Committee (WEIAD) also are involved in the standards committees. So I suspect thought has already been given to how standards might be modified to accommodate these."

The FCC acknowledged that a tighter schedule might disrupt vendors' product cycles but argued that the public-safety issues were compelling enough to warrant a 9-month roll-out.

The strongest industry support appears to be for A/B-IR, where the handset first tries to connect through the preferred carrier, such as the subscriber's carrier or its roaming partner, before trying the other carrier. If the alternate carrier doesn't have a usable signal or vacant voice channel, the handset tries the preferred carrier again and then alternates between the two until the call is completed or the subscriber gives up. Once the call completes, A/B-IR monitors the voice channel. If the call is dropped, the handset would automatically try again.



Selective retry is a sort of manual A/B roaming: The caller uses a button to toggle between the two carriers until the call goes through. Besides a software upgrade, selective retry also requires a hardware change to add the button.

Getting compliant handsets to market by February 2000 was a concern during the debate, when the industry proposed a 12-to-18-month window to implement the solutions. The FCC acknowledged that a tighter schedule might disrupt vendors' product cycles but argued that the public-safety issues were compelling enough to warrant a 9-month roll-out. Handset vendors participated in WEIAD, and most have had one or more solutions under development well before the ruling.

"We feel like we've already created a solution that deals with the issue," said Arnold Gum, Qualcomm senior product manager. "It's something the industry and Qualcomm have been working on for a while. I don't think that there's going to be a problem with meeting the deadline."

Any winnowing likely will come after vendors and carriers have had time to study each solution's real-world performance.

"I seriously doubt that all of our vendors will end up doing it the same way," said one carrier executive. "So what will happen is a couple of the methods — not necessarily all three — will get out there. Then as we see what happens, people will either modify the method, or one will be disqualified because it just doesn't seem to fit."

Cost and public perception also will determine which solutions survive.

"What the consumer demands will get implemented," said Trinh Vu, Siemens senior product manager. "For a high-end handset, I would expect automatic retry would be the feature. Then on the low-end handset, probably (selective retry). It's different market segments."

Cost also apparently isn't a concern.

"It's pretty minimal," Gum said. "I think we see that as part of our job in providing a handset. I don't really foresee any increase in price passed along to the carrier."

One unresolved issue is callback. Suppose that a 911 caller connects via the alternate carrier because the preferred carrier doesn't have coverage in the area. If the caller is in an E-911 Phase I service area, the carrier that completes the call is responsible for supplying emergency personnel with the caller's phone number and the cell site where the call originated. But unless the preferred and alternate carriers have a roaming agreement — and that's rarely the case, for competitive reasons — emergency personnel probably wouldn't be able to call the 911 caller back. Even so, few in the industry and public-safety community see this limitation as enough to scuttle the entire concept, especially when callback on wireline 911 is subject to its own vagaries.

"Although this might be seen as a shortcoming to the FCC proposal, I believe the frequency with which this might occur would be miniscule," said Eric Sorensen, SCC Communications product-marketing manager. "We also have to remember that there are a lot of other reasons that (emergency personnel) may not be able to reach a wireless subscriber via their (number). For instance, they may have turned off their phone or traveled out of a covered area."

Industry estimates show that carriers completed 98,000 911 calls each day in 1998. How many more didn't complete is anyone's guess, but all three proposals should help.

"None of these by themselves are an ideal, 100% guarantee of a call completion," said BellSouth's McGarrah. "Of course, that's due in large part to the fact that RF is such an imprecise science, influenced by terrain, foliage and atmospheric conditions. All of these are attempting to provide alternatives to just the conventional set-up-a-call-only-with-my-preferred-carrier approach to maximize the possibility of call completion. But none of these are slam dunks." ■

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TO: Carl Hilliard, Wireless Consumers Alliance
FROM: David R. Carey, Director of Engineering, Instrumentation Engineering
DATE: August 13, 1999
SUBJECT: Petition for Reconsideration of Ericsson Inc.

In their petition for reconsideration, Ericsson states that the 9-month timeframe for compliance with Section 22.921 of CC Docket No. 94-102 is insufficient time to incorporate the required changes. They are petitioning the FCC to revise its decision in Docket 94-102 so that only mobile phones operating in the analog mode, for which new equipment authorization is filed subsequent to February 13, 2000, be required to comply with the Commission's ruling. You have asked us to review the Ericsson petition and comment. This letter is for that purpose.

Ericsson states that the industry requires 12 to 18 months to implement. However, in the August 1st issue of "Wireless Review" Arnold Gum, Qualcomm senior product manager, said;

> *"We feel like we've already created a solution that deals with the issue. It's something the industry and Qualcomm have been working on for a while. I don't think that there's going to be a problem meeting the deadline."*

We believe that Qualcomm's statement is representative of the manufacturing industry.

On July 22, 1999, Dan Grosh of the WTB Policy Division, filed his notes of conversations with various industry representatives concerning their estimate of the time necessary to comply with a Commission decision which required the modification of handset software to add call completion changes such as Strongest/Adequate Signal and Automatic A/B Roaming with IR. According to these notes, it appears that some time between May 5 and 17, 1999, Barbara Baffer of Ericsson told Mr. Grosh that Ericsson has been working on their own E911 call completion method. In that conversation she indicated that Ericsson engineers could implement a solution in 12 months or less.

EIA/TIA-553 defines the State-Machine Model that all mobile phones operating in the analog mode must follow. Our earlier analysis[1] based on applying Strongest/Adequate Signal to this model illustrated that it required fewer state modifications than any other solution. Nevertheless, all solutions will be dealing with the same model with the same type of modifications.

It is unclear from the petition what E911 calling method Ericsson is planning on implementing. However, Mr.Jatlow's letter of November 2, 1998 to the Commission indicates that almost all of the elements of Strongest/Adequate Signal have been already been incorporated into Ericsson's software. Modifications to add Strongest/Adequate Signal can certainly be accomplished within the 9-month timeframe. This

[1] Our initial analysis was developed when our engineering division was under Giordano Automation Corp. In July of 1999 the GAC Engineering Division was acquired by Instrumentation Engineering. Our report which contains this was filed with the Commission. Based on the detailed analysis contained in this report we concluded that six months was sufficient time to make the proposed changes to the handset software.

APPENDIX "B"

conclusion is supported by our earlier analysis. Ericsson's statement that more time is required is not supported by any technical analysis showing why the Commission's 9-month timeframe is not sufficient. We see no reason to change our earlier opinion, which detailed the type of modifications required, and believe that Ericsson can, in fact, make the changes required by the Commission in six months or less. Our opinion is consistent with the prior statements of Ericsson and with similar statements by other equipment manufacturers. We will be happy to revisit this conclusion when and if any technical analysis or data is presented by Ericsson which supports a need for further time.

I hope this clarifies the matter. If there is anything further let me know.

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CERTIFICATE OF SERVICE

I, Ed DeJesus, hereby certify that on this 1st day of September, 1999, copies of the foregoing Opposition of Wireless Consumers Alliance, Inc. to the Petition for Reconsideration by Ericsson, Inc., in CC Docket No. 94-102, were served by mail or courier* or fax** on the following:

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September 1, 1999

Ed DeJesus